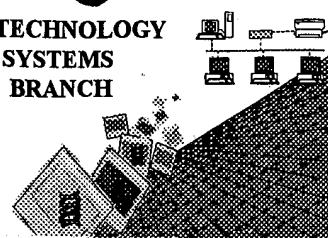BIOTECHNOLOGY
SYSTEMS
BRANCH

RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information
Center (STIC) detected errors when processing the following computer readable
form:

Application Serial Number: _09/517,466C_

Source: _1600_

Date Processed by STIC: _4/18/2002_

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE
   APPLICANT, WITH A NOTICE TO COMPLY or,
2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A
   NOTICE TO COMPLY
FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.
 PATENTIN 2.1 e-mail help: **patin21help@uspto.gov** or phone 703-306-4119 (R. Wax)
 PATENTIN 3.0 e-mail help: **patin3help@uspto.gov** or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER
VERSION 3.1 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:
          http://www.uspto.gov/web/offices/pac/checker

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is
a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the
United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (**<http://www.uspto.gov/ebc/efs/downloads/documents.htm>** , **EFS Submission
   User Manual** - ePAVE)
2. **U.S. Postal Service:** U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. **Hand Carry directly to:**
   U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name,
    Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
             Or
   U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two,
   2011 South Clark Place, Arlington, VA 22202
4. **Federal Express, United Parcel Service, or other delivery service to:** U.S. Patent and Trademark Office,
   Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002

ERROR DETECTED   SUGGESTED CORRECTION   SERIAL NUMBER: _09/517,466C_

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 _____ Wrapped Nucleics
Wrapped Aminos

The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

2 _____ Invalid Line Length

The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 _____ Misaligned Amino
Numbering

The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

4 _____ Non-ASCII

The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

5 ✓ Variable Length

Sequence(s) _15-?_ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

6 _____ PatentIn 2.0
"bug"

A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

7 _____ Skipped Sequences
(OLD RULES)

Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i)   SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8 _____ Skipped Sequences
(NEW RULES)

Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000

9 _____ Use of n's or Xaa's
(NEW RULES)

Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa; and which residue n or Xaa represents.

10 _____ Invalid <213>
Response

Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence

11 _____ Use of <220>

Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32)   (Sec. 1.823 of Sequence Rules)

12 _____ PatentIn 2.0
"bug"

Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 _____ Misuse of n

n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.

AMC/MH – Biotechnology Systems Branch – 08/21/2001

1634

Does Not Comply
Corrected Diskette Needed

_7yl 4—6_

```
  5 <110> APPLICANT: Hartley, James L.
  7         Brasch, Michael A.
  9         Temple, Gary F.
 11         Cheo, David
 15 <120> TITLE OF INVENTION: Compositions and Methods for Use in Recombinational
 16         Cloning of Nucleic Acids
 20 <130> FILE REFERENCE: 0942.4680003
 24 <140> CURRENT APPLICATION NUMBER: 09/517,466C
 26 <141> CURRENT FILING DATE: 2000-03-02
 30 <150> PRIOR APPLICATION NUMBER: US 60/122,389
 32 <151> PRIOR FILING DATE: 1999-03-02
 36 <150> PRIOR APPLICATION NUMBER: US 60/126,049
 38 <151> PRIOR FILING DATE: 1999-03-23
 42 <150> PRIOR APPLICATION NUMBER: US 60/136,744
 44 <151> PRIOR FILING DATE: 1999-05-28
 48 <160> NUMBER OF SEQ ID NOS: 285
 52 <170> SOFTWARE: PatentIn version 3.1
 56 <210> SEQ ID NO: 1
 58 <211> LENGTH: 25
 60 <212> TYPE: DNA
 62 <213> ORGANISM: Artificial Sequence
 66 <220> FEATURE:
 68 <223> OTHER INFORMATION: attB1 site
 70 <400> SEQUENCE: 1
 71 acaagtttgt acaaaaaagc aggct                                           25
 74 <210> SEQ ID NO: 2
 76 <211> LENGTH: 25
 78 <212> TYPE: DNA
 80 <213> ORGANISM: Artificial Sequence
 84 <220> FEATURE:
 86 <223> OTHER INFORMATION: attB2 site
 88 <400> SEQUENCE: 2
 89 acccagcttt cttgtacaaa gtggt                                           25
 92 <210> SEQ ID NO: 3
 94 <211> LENGTH: 233
 96 <212> TYPE: DNA
 98 <213> ORGANISM: Artificial Sequence
102 <220> FEATURE:
104 <223> OTHER INFORMATION: attP1 site
106 <400> SEQUENCE: 3
107 tacaggtcac taataccatc taagtagttg attcatagtg actggatatg ttgtgtttta    60
109 cagtattatg tagtctgttt tttatgcaaa atctaattta atatattgat atttatatca   120
111 ttttacgttt ctcgttcagc tttttgtac aaagttggca ttataaaaaa gcattgctca    180
```

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MAY 0 1 2002

TECH CENTER 1600/2900

RAW SEQUENCE LISTING   DATE: 04/24/2002
PATENT APPLICATION: US/09/517,466C   TIME: 07:44:39

Input Set : A:\09424680003seqlist ascii
Output Set: N:\CRF3\04242002\I517466C.raw

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116 <210> SEQ ID NO: 4
118 <211> LENGTH: 233
120 <212> TYPE: DNA
122 <213> ORGANISM: Artificial Sequence
126 <220> FEATURE:
128 <223> OTHER INFORMATION: attP2
130 <400> SEQUENCE: 4
131 caaataatga ttttattttg actgatagtg acctgttcgt tgcaacaaat tgataagcaa       60
133 tgctttctta taatgccaac tttgtacaag aaagctgaac gagaaacgta aaatgatata      120
135 aatatcaata tattaaatta gattttgcat aaaaaacaga ctacataata ctgtaaaaca      180
137 caacatatcc agtcactatg aatcaactac ttagatggta ttagtgacct gta            233
140 <210> SEQ ID NO: 5
142 <211> LENGTH: 125
144 <212> TYPE: DNA
146 <213> ORGANISM: Artificial Sequence
150 <220> FEATURE:
152 <223> OTHER INFORMATION: attL1
154 <400> SEQUENCE: 5
155 acaagtttgt acaaaaaagc tgaacgagaa acgtaaaatg atataaatat caatatatta       60
157 aattagattt tgcataaaaa acagactaca taatactgta aaacacaaca tatccagtca      120
159 ctatg                                                               125
162 <210> SEQ ID NO: 6
164 <211> LENGTH: 135
166 <212> TYPE: DNA
168 <213> ORGANISM: Artificial Sequence
172 <220> FEATURE:
174 <223> OTHER INFORMATION: attL2
176 <400> SEQUENCE: 6
177 gcaggtcgac catagtgact ggatatgttg tgttttacag tattatgtag tctgtttttt       60
179 atgcaaaatc taatttaata tattgatatt tatatcattt tacgtttctc gttcagcttt      120
181 cttgtacaaa gtggt                                                     135
184 <210> SEQ ID NO: 7
186 <211> LENGTH: 100
188 <212> TYPE: DNA
190 <213> ORGANISM: Artificial Sequence
194 <220> FEATURE:
196 <223> OTHER INFORMATION: attR1
198 <400> SEQUENCE: 7
199 caaataatga ttttattttg actgatagtg acctgttcgt tgcaacaaat tgataagcaa       60
201 tgcttttta taatgccaac tttgtacaaa aaagcaggct                           100
204 <210> SEQ ID NO: 8
206 <211> LENGTH: 100
208 <212> TYPE: DNA
210 <213> ORGANISM: Artificial Sequence
214 <220> FEATURE:
216 <223> OTHER INFORMATION: attR2
218 <400> SEQUENCE: 8
219 caaataatga ttttattttg actgatagtg acctgttcgt tgcaacaaat tgataagcaa       60
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221 tgctttctta taatgccaac tttgtacaag aaagctgggt                        100
224 <210> SEQ ID NO: 9
226 <211> LENGTH: 15
228 <212> TYPE: DNA
230 <213> ORGANISM: Artificial Sequence
234 <220> FEATURE:
236 <223> OTHER INFORMATION: 15 bp core region of attB, attP, attL and attR
238 <400> SEQUENCE: 9
239 gcttttttat actaa                                                    15
242 <210> SEQ ID NO: 10
244 <211> LENGTH: 30
246 <212> TYPE: DNA
248 <213> ORGANISM: Artificial Sequence
252 <220> FEATURE:
254 <223> OTHER INFORMATION: attL5
256 <400> SEQUENCE: 10
257 agcctgcttt attatactaa gttggcatta                                    30
260 <210> SEQ ID NO: 11
262 <211> LENGTH: 30
264 <212> TYPE: DNA
266 <213> ORGANISM: Artificial Sequence
270 <220> FEATURE:
272 <223> OTHER INFORMATION: attL6
274 <400> SEQUENCE: 11
275 agcctgcttt tttatattaa gttggcatta                                    30
278 <210> SEQ ID NO: 12
280 <211> LENGTH: 28
282 <212> TYPE: DNA
284 <213> ORGANISM: Artificial Sequence
288 <220> FEATURE:
290 <223> OTHER INFORMATION: attB1.6
292 <400> SEQUENCE: 12
293 ggggacaact ttgtacaaaa aagttggc                                      28
296 <210> SEQ ID NO: 13
298 <211> LENGTH: 29
300 <212> TYPE: DNA
302 <213> ORGANISM: Artificial Sequence
306 <220> FEATURE:
308 <223> OTHER INFORMATION: attB2.2
310 <400> SEQUENCE: 13
311 ggggacaact ttgtacaaga aagctgggt                                     29
314 <210> SEQ ID NO: 14
316 <211> LENGTH: 29
318 <212> TYPE: DNA
320 <213> ORGANISM: Artificial Sequence
324 <220> FEATURE:
326 <223> OTHER INFORMATION: attB2.10
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329 ggggacaact ttgtacaaga aagttgggt                                     29
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/517,466C

DATE: 04/24/2002
TIME: 07:44:39

Input Set : A:\09424680003seqlist ascii
Output Set: N:\CRF3\04242002\I517466C.raw

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332 <210> SEQ ID NO: 15
334 <211> LENGTH: 25
336 <212> TYPE: DNA
338 <213> ORGANISM: Artificial Sequence
342 <220> FEATURE:
344 <223> OTHER INFORMATION: attB2(-1) Oligonucleotide Primer
346 <220> FEATURE:
348 <221> NAME/KEY: misc_feature
350 <222> LOCATION: (25)..(25)
352 <223> OTHER INFORMATION: n at the 3' end of the primer represents a target-specific
353       sequence of any length
357 <400> SEQUENCE: 15
358 cccagctttc ttgtacaaag tggtn
361 <210> SEQ ID NO: 16
363 <211> LENGTH: 24
365 <212> TYPE: DNA
367 <213> ORGANISM: Artificial Sequence
371 <220> FEATURE:
373 <223> OTHER INFORMATION: attB2(-2) Oligonucleotide Primer
375 <220> FEATURE:
377 <221> NAME/KEY: misc_feature
379 <222> LOCATION: (24)..(24)
381 <223> OTHER INFORMATION: n at the 3' end of the primer represents a target-specific
382       sequence of any length
386 <400> SEQUENCE: 16
387 ccagctttct tgtacaaagt ggtn
390 <210> SEQ ID NO: 17
392 <211> LENGTH: 23
394 <212> TYPE: DNA
396 <213> ORGANISM: Artificial Sequence
400 <220> FEATURE:
402 <223> OTHER INFORMATION: attB2(-3) Oligonucleotide Primer
404 <220> FEATURE:
406 <221> NAME/KEY: misc_feature
408 <222> LOCATION: (23)..(23)
410 <223> OTHER INFORMATION: n at the 3' end of the primer represents a target-specific
411       sequence of any length
415 <400> SEQUENCE: 17
416 cagctttctt gtacaaagtg gtn
419 <210> SEQ ID NO: 18
421 <211> LENGTH: 22
423 <212> TYPE: DNA
425 <213> ORGANISM: Artificial Sequence
429 <220> FEATURE:
431 <223> OTHER INFORMATION: attB2(-4) Oligonucleotide Primer
433 <220> FEATURE:
435 <221> NAME/KEY: misc_feature
437 <222> LOCATION: (22)..(22)
439 <223> OTHER INFORMATION: n at the 3' end of the primer represents a target-specific
```

[Handwritten annotations:] n can only represent a single nucleotide (n at the 3' end of the primer represents a target-specific sequence of any length) (see item 5 on Exan Summary Sheet)

[Handwritten:] 25

[Handwritten:] same end 24

[Handwritten:] same 23

[Handwritten:] p.5

W--> 358 W--> 387 W--> 416

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/517,466C

DATE: 04/24/2002
TIME: 07:44:39

Input Set : A:\09424680003seqlist ascii
Output Set: N:\CRF3\04242002\I517466C.raw

```
        440        sequence of any length                          same
        444 <400> SEQUENCE: 18
W--> 445 agctttcttg tacaaagtgg tn                                            22
        448 <210> SEQ ID NO: 19
        450 <211> LENGTH: 26
        452 <212> TYPE: DNA
        454 <213> ORGANISM: Artificial Sequence
        458 <220> FEATURE:
        460 <223> OTHER INFORMATION: attB1- and attB2-derived Oligonucleotide Primer
        462 <220> FEATURE:
        464 <221> NAME/KEY: misc_feature
        466 <222> LOCATION: (26)..(26)
        468 <223> OTHER INFORMATION: n at the 3' end of the primer represents a target-specific
        469        sequence of any length
        473 <400> SEQUENCE: 19
W--> 474 acaagtttgt acaaaaaagc aggctn              same                      26
        477 <210> SEQ ID NO: 20
        479 <211> LENGTH: 26
        481 <212> TYPE: DNA
        483 <213> ORGANISM: Artificial Sequence
        487 <220> FEATURE:
        489 <223> OTHER INFORMATION: attB1- and attB2-derived Oligonucleotide Primer
        491 <220> FEATURE:
        493 <221> NAME/KEY: misc_feature
        495 <222> LOCATION: (26)..(26)
        497 <223> OTHER INFORMATION: n at the 3' end of the primer represents a target-specific
        498        sequence of any length
        502 <400> SEQUENCE: 20
W--> 503 accactttgt acaagaaagc tgggtn              same                      26
        506 <210> SEQ ID NO: 21
        508 <211> LENGTH: 19
        510 <212> TYPE: DNA
        512 <213> ORGANISM: Artificial Sequence
        516 <220> FEATURE:
        518 <223> OTHER INFORMATION: attB1- and attB2-derived Oligonucleotide Primer
        520 <220> FEATURE:
        522 <221> NAME/KEY: misc_feature
        524 <222> LOCATION: (19)..(19)
        526 <223> OTHER INFORMATION: n at the 3' end of the primer represents a target-specific
        527        sequence of any length
        531 <400> SEQUENCE: 21
W--> 532 tgtacaaaaa agcaggctn                      same                      19
        535 <210> SEQ ID NO: 22
        537 <211> LENGTH: 19
        539 <212> TYPE: DNA
        541 <213> ORGANISM: Artificial Sequence
        545 <220> FEATURE:
        547 <223> OTHER INFORMATION: attB1- and attB2-derived Oligonucleotide Primer
        549 <220> FEATURE:
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 04/24/2002
PATENT APPLICATION: US/09/517,466C   TIME: 07:44:40

Input Set : A:\09424680003seqlist ascii
Output Set: N:\CRF3\04242002\I517466C.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:15; N Pos. 25
Seq#:16; N Pos. 24
Seq#:17; N Pos. 23
Seq#:18; N Pos. 22
Seq#:19; N Pos. 26
Seq#:20; N Pos. 26
Seq#:21; N Pos. 19
Seq#:22; N Pos. 19
Seq#:23; N Pos. 16
Seq#:24; N Pos. 16
Seq#:25; N Pos. 13
Seq#:26; N Pos. 13
Seq#:27; N Pos. 12
Seq#:28; N Pos. 12
Seq#:29; N Pos. 11
Seq#:30; N Pos. 11
Seq#:33; N Pos. 4,5,6,7,8,9,10,11,12,22,23,24,25,26,27
Seq#:92; N Pos. 7,8,10,11,12,14,15
Seq#:109; N Pos. 20,21,22,23,24
Seq#:110; N Pos. 25,26,27,28,29
Seq#:112; N Pos. 20,21,22,23,24
Seq#:113; N Pos. 25,26,27,28,29
Seq#:114; N Pos. 13,14
Seq#:115; N Pos. 13
Seq#:132; N Pos. 6950
Seq#:160; N Pos. 1326
Seq#:162; N Pos. 1102,3080
Seq#:171; N Pos. 1,2,3,4,5,6
Seq#:172; N Pos. 1,2,3,4,5,6,7,8
Seq#:173; N Pos. 1,2,3,4,5,6,7
Seq#:179; N Pos. 2263
Seq#:244; N Pos. 1
Seq#:274; N Pos. 1
Seq#:279; N Pos. 1